

1      **ABSTRACT**

2      Various implementations of the described subject matter provide for the  
3      management of a multi-dimensional sleep queue, such that a group of threads with  
4      a same wake-up time are removed from the multi-dimensional sleep queue in a  
5      deterministic amount of time that is independent of the number of threads in the  
6      removed group. This is significant because it allows an operating system to  
7      schedule other threads for execution within deterministic/predetermined time  
8      parameters. Moreover, the described subject matter also provides for inserting  
9      new threads into the multi-dimensional sleep queue in a manner that allows other  
10     processes to execute during the thread insertion process.

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